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EXAMINER
ONUAKU, CHRISTOPHER O

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

(

PTO-90C (Rev. 10/03)

	Application No.		Applicant(s)	
Office Action Summary	08/939,442		NA ET AL.	
	Examiner		Art Unit	
	Christopher O. Onuaku		2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-81* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *3-21,26-30,62-67,72,73,79 and 80* is/are allowed.

6)☒ Claim(s) *1,2,22-25,31-45,48-50,53-61,68-71,74-78&81* is/are rejected.

7)☒ Claim(s) *46,47,51 and 52* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

    1.☒ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____ .

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1-12,17-45,48-50&53-68 have been

considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 U.S.C. § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious
> at the time the invention was made to a person having ordinary skill in the art to which said
> subject matter pertains. Patentability shall not be negatived by the manner in which the invention
> was made.

3.   Claims 1,2,22-24,31-35,39,48,53,56-58,60&68 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Ohishi et al (US 5,909,257) in view of Yuen et al (US 6,430,359)..

Regarding claim 1, Ohishi et al (US 5,909,257) disclose receiving a broadcasted

digital signals with bit streams of digital data conveying packets under time-division

multiplexing, each packet at leasdt having a packet of programs specific information of a

large number of TV programs and packets of the TV programs themselves, comprising:

a) an input device for entering program information intended programs(see

Fig.2, and select data terminal 70; col.5, lines 6-14);

b) a receiver, including a "first" digital interface , for generating a control command based on the program information received from the input device, and for transferring the control command and a multi-program transport stream via the first digital interface (see Fig.2, receiving apparatus 200 and DIF 12; col.5, line 6 to col.6, line 58).

c) a recording/reproducing device including a "second" digital interface for recording/reproducing a multi-program transport stream transferred from the receiver (see Fig.2, recording/reproducing apparatus 16; DIF 15; col.6, lines 52-63), here the bit streams are output from the digital interface 12 to the recording/reproducing apparatus 16 via external digital interface 15, and a D-VHS type VCR which can be used as the digital recording/reproducing apparatus 16 records digital data on a truck formed on a magnetic tape with a recording format as shown in Fig.7.

Ohishi et al fail to explicitly disclose a receiver for decoding the control command transferred from the receiver and for recording/reproducing the multi-program transport stream transferred from the receiver corresponding to the program information obtained by decoding the received control command

Yuen et al teach video cassette recorder systems and timer preprogramming features of video cassette recorders (VCRs), and an apparatus and method for using encoded information to shorten the time required to perform timer preprogramming and an apparatus and method of embedding the decoding of the encoded information in a television receiver, video cassette recorder, cable box and satellite receiver, comprising wherein the video cassette recorder/player includes a G-code decoder, which converts

the G-code into channel, date, time and length (CDTL) information which is used by the

command controller 36 to set the time/channel programming 40 and use this CDTL

information for tuning into the correct channel, starting and stopping the recording

function of the VCR/player (see Fig.1-5, remote controller 12 with G-code switch 22,

command controller 36, VCR/player 14 with G-code decoder 14; col.6, line 53 to col.7,

line 14; col.8, lines 30-48)

It is pertinent to note that Yuen teaches that, as shown above, the G-code

decoder can be added to many electronic devices.

It would have been obvious to modify the recording/reproducing apparatus of

Ohishi by adding a G-code decoder to the recording/reproducing apparatus of Ohishi, in

order to decode a program transport stream, for example.

Regarding claim 2, Yuen further discloses wherein the input device is a remote

controller (see Fig.1, remote controller 12; col.5, line 53 to col.6, line 5.

Regarding claim 22, the claimed limitations of claim 22 are accommodated in the

discussions of claim 1 above.

Regarding claim 23, Ohishi discloses the method steps, comprising:

a) parsing the program guide information from the transport stream and

displaying the parsed program guide information (see col.3, lines 45-62);

b) providing the program information of the intended program according to the displayed program guide information (see col.5, line 45 to col.6, line 43).

Regarding claim 24, Yuen teaches wherein the parsed program guide information is displayed on an OSD display (see col.6, lines 6-12 and col.30, lines 41-59).

Regarding claims 31,32&34, the claimed limitations of claims 31,32&34 are accommodated in the discussions of claim 1 above.

Regarding claim 33, the claimed limitations of claim 33 are accommodated in the discussions of claim 2 above.

Regarding claim 35, the claimed limitations of claim 35 are accommodated in the discussions of claim 1 above, including the processing of the PSI (see Ohishi col.5, lines 64-67; col.6, lines 33-38 and col.8, lines 9-19).

Regarding claim 39, the claimed limitations of claim 39 are accommodated in the discussions of claim 35 above.

Regarding claim 48, the claimed limitations of claim 48 are accommodated in the discussions of claim 1 above, including for outputting a reproduced transport stream to the digital interface during a playback mode (see Ohishi col.9, lines 51-57).

Regarding claim 53, the claimed limitations of claim 53 are accommodated in the discussions of claims 24&35 above, wherein the PSI reads on program guide information, and wherein Ohishi modified with Yuen '359, it would have been obvious to display the PSI , processed in Ohishi on the on-screen display means of Yuen '359, in order to on-screen display the PSI information.

Regarding claim 56, the claimed limitations of claim 56 are accommodated in the discussions of claim 24 above.

Regarding claim 57, Ohishi and Yuen '359 fail to explicitly disclose wherein the second signal processor does not parse the program guide information from a transport stream being received via the second digital interface, but this would have been an obvious engineering design consideration depending on the circuit at hand.
+

Regarding claim 58, the claimed limitations of claim 58 are accommodated in the discussions of claim 22 above.

Regarding claim 60, the claimed limitations of claim 60 are accommodated in the discussions of claim 24 above.

Regarding claim 68, the claimed limitations of claim 68 are accommodated in the discussions of claim 1 above, except the recording/reproducing device (see Ohishi Fig.2 and recording/reproducing apparatus 16; col.5, lines 14-18).

4.   Claim 40,41,43,45,49,50,59,78&81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohishi in view of Yuen '359 and further in view of Saib (US 6,097,878).

Regarding claim 40, Ohishi and Yuen '359 fail to disclose wherein the digital interface comprises an IEEE 1394 interface. Saib teaches system and method for authomatically loading programming data of a show to be recorded without manually inputting similar data through a timer screen comprising IF 415 which complies with IEEE 1394 standard which enables the connecting of digital peripheral devices such as digital VCRs, digital video disk players, digital laser disk players, and the like (see cFig.4; col.4, lines 28-44.

It would have been obvious to further modify Ohishi by making the digital interface of Ohishi comply with the IEEE 1394 standard, as taught by Saib, since this enables the connecting of digital peripheral devices such as digital VCRs, digital video disk players, digital laser disk players, and the like.

Regarding claim 41, Saib discloses wherein the "first" digital interface transfers the transport stream as isochronous packets during an isochronous transfer "mode", and transfers the program number as asynchronous packets during an asynchronous transfer "mode" using " control command set"(see col.4, lines 28-44), IEEE-1394 standard conforms to isochronous and asynchronous transfer of data.

Regarding claim 43, Saib discloses wherein the "first" digital interface transfers a multi-program transport stream isochronous packets in an isochronous transfer "mode, and the "second" digital interface transfers a "single program" (packet) transport stream as isochronous packets in the isochronous transfer mode during a playback "mode" (see col.4, lines 28-44-12 and col.5, lines 5-20), here the IRD 310 of Fig.3 can be connected to peripheral devices, e.g., VCR, through IEEE-1394 digital interface system which conforms to isochronous and asynchronous transfer of data.

Regarding claim 45, the claimed limitations of claim 45 are accommodated in the discussions of claim 41 above.

Regarding claim 49, the claimed limitations of claim 49 are accommodated in the discussions of claim 41 above.

Regarding claim 50, Saib teaches wherein the digital interface comprises an IEEE 1394 interface (see Saib col.4, lines 28-44).

Regarding claim 59, the claimed limitations of claim 59 are accommodated in the discussions of claim 23 above.

Regarding claim 78, the claimed limitations of claim 78 are accommodated in the discussions of claims 1&50 above.

Regarding claim 81, the claimed limitations of claim 81 are accommodated in the discussions of claims 1&50 above.

5.   Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohishi in view of Yuen '359 and further in view of Couts (US 5,742,730).

Regarding claim 42, Ohishi and Yuen '359 fail to disclose wherein the control command set is an audio/video control command and transaction set (AV/C CTS). Couts teaches a control system for rapidly and accurately positioning consumer-type VCRs to arbitrarily selected tape positions comprising wherein the "control command set" is an "audio/video control command and transaction set" (AV/C CTS) (see col.9, lines 43-61).

It would have been obvious to further modify Ohishi by adding the audio/video control command and transaction set" (AV/C CTS of Couts, in order that Ohishi would conform to the AV/C CTS standard.

6.   Claims 54&55 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ohishi in view of Yuen '359 and further in view Fujii et al (US 5,966,385).

Regarding claim 54, Ohishi and Yuen '359 fail to explicitly disclose wherein the

OSG generator mixes the program guide information with a graphic signal of a

background screen to be provided to the OSG display.

Fujii et al teach a receiver/decoder for receiving video and audio data

compression encoded by high efficiency coding means and decoding the received

encoded data, wherein when a specific information (SI) data is analyzed, if the data is

program guide information, the OSD data is generated from this information and sent to

the OSD processor 206 via the bus. The OSD processor 206 processes the OSD data

'f'' and sends it to the video decoder 207 in synchronization with a sync 'q' of the video

data decoded by the video decoder 207. In this manner, the program guide is displayed,

for example, overlaid on the decoded video data (see Fig.17, col.13, lines 7-14), here

examiner reads the decoded video data as the graphics signal of a background screen.

Mixing the program guide information with a graphic signal of a background screen to

be provided to the OSG display provides the desirable advantage of, for example,

displaying the program guide information and the graphic signal simultaneously, thereby

facilitating the user program selection operation, by the comparison of the program

guide information with graphic signal.

It would have been obvious to further modify Ohishi by realizing Ohishi with the

means to display the program guide overlaid (mixed with) on a video data, as taught by

Fujii, since this provides the desirable advantage of, for example, displaying the

program guide information and the graphic signal simultaneously, thereby facilitating the

user program selection operation, by the comparison of the program guide information

with graphic signal.

Regarding claim 55, the claimed limitations of claim 55 are accommodated in the

discussions of claim 54 above.

7.   Claims 25,36-38&61 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Ohishi in view of Yuen et al (US 6,430,359) and further in view of

Yuen et al (US 5,488,409).

Regarding claim 36, Ohishi and Yuen '359 fail to explicitly an input device for

inputting the program number of an intended program. Yuen '409 teaches apparatus

and methods for facilitating and monitoring the management, storage and retrieval of

programs on a cassette of magnetic tape, including automatic monitoring of the

operation of a video cassette recorder, wherein a user can select a program from the

directory screen for playback by entering the corresponding number of the program as

displayed (see col.46, line 64 to col.47, line 2). An input device for inputting the program

number of an intended program provides the desirable advantage of, for example,

allowing the user to select and input the program number of a program a user desires to

play or record.

It would have been obvious to further modify Ohishi by realizing Ohishi with an

input device for inputting the program number of an intended program, as taught by

Yuen '409, since this provides the desirable advantage of, for example, allowing the

user to select and input the program number of a program a user desires to play or

record.

Regarding claim 25, Yuen '409 further teaches the method comprising the steps

of transferring a "command" for inquiring whether to permit the transfer of the program

number of the program recorded in the recording medium, from the receiver to the

recording/reproducing device, during a playback mode, and receiving the program

number of the program recorded in the recording medium, from the

recording/reproducing device (see col.17, lines 1-16.

Regarding claim 37, the claimed limitations of claim 37 are accommodated in the

discussions of claim 2 above.

Regarding claim 38, the claimed limitations of claim 38 are accommodated in the

discussions of claim 1 above.

Regarding claim 61, the claimed limitations of claim 61 are accommodated in the

discussions of claim 25 above.

8.   Claims 44,69-71&74-77 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Ohishi in view of Yuen et al '359 and Yuen et al '409 and further in

view of Saib.

Regarding claim 44, the claimed limitations of claim 44 are accommodated in the

discussions of claim 43 above.

Regarding claim 69, the claimed limitations of claim 69 are accommodated in the

discussions of claims 1,25&41 above.

Regarding claim 70, the claimed limitations of claim 70 are accommodated in the

discussions of claims 1,25&41 above.

Regarding claim 71, the claimed limitations of claim 71 are accommodated in the

discussions of claims 1,25&41 above.

Regarding claim 74, the claimed limitations of claim 74 are accommodated in the

discussions of claim 69 above.

Regarding claim 75, the claimed limitations of claim 75 are accommodated in the

discussions of claim 69 above.

Regarding claim 76, the claimed limitations of claim 76 are accommodated in the discussions of claim 74 above.

Regarding claim 77, the claimed limitations of claim 77 are accommodated in the discussions of claim 74 above.

Allowable Subject Matter

9.   Claims 3-21,26-30,62-67,72,73,79&80 are allowable over the prior art of record.

10.   The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 3, the invention relates to a digital audio-video (A/V) apparatus, including a multi-media system in which a plurality of digital A/V devices are connected to each other via a digital interface.

The closest references Ohishi et al (US 5,909,257) disclose receiving a broadcasted digital signals with bit streams of digital data conveying packets under time-division multiplexing, each packet at leasdt having a packet of programs specific information of a large number of TV programs and packets of the TV programs themselves, and Yuen et al (US 6,430,359) teach video cassette recorder systems and timer preprogramming features of video cassette recorders (VCRs), and an apparatus and method for using encoded information to shorten the time required to perform timer preprogramming and an apparatus and method of embedding the decoding of the

encoded information in a television receiver, video cassette recorder, cable box and satellite receiver.

However, Ohishi et al and Yuen et al fail to explicitly disclose a multi-media system, where the system comprises a receiver which comprises first digital interface for receiving program information of an intended program from the input device, generating a program information control command based on the program information of the intended program, and transmitting the multi-program transport stream provided by the first signal processor and the program information control command, and a recording/reproducing device which comprises a second digital interface for receiving the program information control command and the multi-program transport stream from the first digital interface and decoding the program information control command to obtain the program information of the intended program.

Regarding claim 26, the invention relates to a digital audio-video (A/V) apparatus, including a multi-media system in which a plurality of digital A/V devices are connected to each other via a digital interface.

The closest references Ohishi et al (US 5,909,257) disclose receiving a broadcasted digital signals with bit streams of digital data conveying packets under time-division multiplexing, each packet at leasdt having a packet of programs specific information of a large number of TV programs and packets of the TV programs themselves, and Yuen et al (US 6,430,359) teach video cassette recorder systems and timer preprogramming features of video cassette recorders (VCRs), and an apparatus

and method for using encoded information to shorten the time required to perform timer preprogramming and an apparatus and method of embedding the decoding of the encoded information in a television receiver, video cassette recorder, cable box and satellite receiver.

However, Ohishi et al and Yuen et al fail to explicitly disclose a method for transferring program information between a receiver with a digital interface for receiving a multi-program transport stream and a recording device with a digital interface for recording the multi-program transport stream on a recording medium, wherein the multi-program transport stream is transferred between the digital interface of the receiver and the digital interface of the recording device, where the method comprises the steps of transferring a command for inquiring as to whether to permit the recording of the program, receiving a response for permitting the recording of the program from the recording device, transferring a command for performing the recording of the program corresponding to the program information of an intended program to be recorded, and receiving a response for notifying of the permission of the recording of the program corresponding to the program information, from the recording device.

Regarding claim 30, the invention relates to a digital audio-video (A/V) apparatus, including a multi-media system in which a plurality of digital A/V devices are connected to each other via a digital interface.

The closest references Ohishi et al (US 5,909,257) disclose receiving a broadcasted digital signals with bit streams of digital data conveying packets under

time-division multiplexing, each packet at leasdt having a packet of programs specific

information of a large number of TV programs and packets of the TV programs

themselves, and Yuen et al (US 6,430,359) teach video cassette recorder systems and

timer preprogramming features of video cassette recorders (VCRs), and an apparatus

and method for using encoded information to shorten the time required to perform timer

preprogramming and an apparatus and method of embedding the decoding of the

encoded information in a television receiver, video cassette recorder, cable box and

satellite receiver.

However, Ohishi et al and Yuen et al fail to explicitly disclose a method for

receiving program information by a receiver with a digital interface for receiving a multi-

program transport stream and a reproducing device with a digital interface for

reproducing the multi-program transport stream recorded on a recording medium,

wherein the multi-program transport stream is transferred between the digital interface

of the reproducing device and the digital interface of the receiver, where the method

comprises the steps of inquiring as to whether to permit the transfer of program

information corresponding to the program recorded on the recording medium, during a

playback mode, receiving a response for permitting the reproduction of the program

from the reproducing device, transferring a command for requesting the program

information of the program recorded on the recording medium, and transferring a

command indicating the program information of the program recorded on the recording

medium from the reproducing device.

Regarding claim 62, the invention relates to a digital audio-video (A/V) apparatus, including a multi-media system in which a plurality of digital A/V devices are connected to each other via a digital interface.

The closest references Ohishi et al (US 5,909,257) disclose receiving a broadcasted digital signals with bit streams of digital data conveying packets under time-division multiplexing, each packet at leasdt having a packet of programs specific information of a large number of TV programs and packets of the TV programs themselves, and Yuen et al (US 6,430,359) teach video cassette recorder systems and timer preprogramming features of video cassette recorders (VCRs), and an apparatus and method for using encoded information to shorten the time required to perform timer preprogramming and an apparatus and method of embedding the decoding of the encoded information in a television receiver, video cassette recorder, cable box and satellite receiver.

However, Ohishi et al and Yuen et al fail to explicitly disclose a method for transferring program information between a receiver with a digital interface for receiving a multi-program transport stream and a recording and reproducing device with a digital interface for recording the multi-program transport stream on a recording medium, where the method comprises the steps of transferring a command for inquiring as to whether to permit the recording or reproducing of the program, receiving a response for permitting the recording of the program from the recording and reproducing device, and transferring a command for performing the recording of the program corresponding to the program information of an intended program to be recorded.

Regarding claim 67, the invention relates to a digital audio-video (A/V) apparatus, including a multi-media system in which a plurality of digital A/V devices are connected to each other via a digital interface.

The closest references Ohishi et al (US 5,909,257) disclose receiving a broadcasted digital signals with bit streams of digital data conveying packets under time-division multiplexing, each packet at leasdt having a packet of programs specific information of a large number of TV programs and packets of the TV programs themselves, and Yuen et al (US 6,430,359) teach video cassette recorder systems and timer preprogramming features of video cassette recorders (VCRs), and an apparatus and method for using encoded information to shorten the time required to perform timer preprogramming and an apparatus and method of embedding the decoding of the encoded information in a television receiver, video cassette recorder, cable box and satellite receiver.

However, Ohishi et al and Yuen et al fail to explicitly disclose a method for receiving program information by a receiver with a digital interface for receiving a multi-program transport stream and a reproducing device with a digital interface for reproducing the multi-program transport stream of the program recorded on a recording medium, where the method comprises the steps of inquiring as to whether to permit the transfer of program information corresponding to the program recorded on the recording medium, during a playback mode, receiving a response for permitting the reproduction of the program from the reproducing device, transferring a command for requesting the

program information of the program recorded on the recording medium, and receiving

the program information of the program recorded on the recording medium from the

reproducing device.

11.   Claims 46-47,51&52 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

10.   The following is a statement of reasons for the indication of allowable subject

matter:

Regarding claim 46, the invention relates to a digital audio-video (A/V) apparatus,

including a multi-media system in which a plurality of digital A/V devices are connected

to each other via a digital interface.

The closest references Ohishi et al (US 5,909,257) disclose receiving a

broadcasted digital signals with bit streams of digital data conveying packets under

time-division multiplexing, each packet at leasdt having a packet of programs specific

information of a large number of TV programs and packets of the TV programs

themselves, and Yuen et al (US 6,430,359) teach video cassette recorder systems and

timer preprogramming features of video cassette recorders (VCRs), and an apparatus

and method for using encoded information to shorten the time required to perform timer

preprogramming and an apparatus and method of embedding the decoding of the

encoded information in a television receiver, video cassette recorder, cable box and

satellite receiver.

However, Ohishi et al and Yuen et al fail to explicitly disclose a digital

Audio/video device having a receiver for receiving a transport stream comprising a

signal processor, a digital interface, an input device, the receiver is connected to at least

one recording/reproducing device using the digital interface and the receiver and the

recording/reproducing device are controlled by the input device, where the A/V device

further comprises wherein the digital interface comprises a first microcomputer including

a transaction layer and a serial bus management layer, as software, for generating the

program information control command based on the program information input via the

input device, using a write transaction and a read transaction, a first link layer for adding

an asynchronous header to the control command generated by the first microcomputer

to convert the control command into serial data, and a first physical layer for converting

the control command serial data into an electrical signal.

Regarding claim 51, , the invention relates to a digital audio-video (A/V)

apparatus, including a multi-media system in which a plurality of digital A/V devices are

connected to each other via a digital interface.

The closest references Ohishi et al (US 5,909,257) disclose receiving a

broadcasted digital signals with bit streams of digital data conveying packets under

time-division multiplexing, each packet at leasdt having a packet of programs specific

information of a large number of TV programs and packets of the TV programs

themselves, and Yuen et al (US 6,430,359) teach video cassette recorder systems and

timer preprogramming features of video cassette recorders (VCRs), and an apparatus

and method for using encoded information to shorten the time required to perform timer

preprogramming and an apparatus and method of embedding the decoding of the

encoded information in a television receiver, video cassette recorder, cable box and

satellite receiver.

However, Ohishi et al and Yuen et al fail to explicitly disclose a digital audio/video

recording/reproducing device for recording/reproducing a transport stream transferred

from a digital A/V device, the recording/reproducing device comprising a digital

interfaces, and a signal processor, and the digital interface comprises an IEEE 1394

interface where the digital A/V recording/reproducing device further comprises wherein

the digital interface comprises a second physical layer for converting the program

information command electrical signal, transferred from the first physical layer, into

digital data, a second link layer for converting the program information command digital

data into parallel data, and for removing the asynchronous header, and a second

microcomputer including a transaction layer and a serial bus management layer, as

software, for recording the program information on a predetermined region of a

recording medium by recognizing the program information command during a recording

mode, and for reading out the program information recorded in the predetermined

region during a playback mode.

Conclusion

12.   Any inquiry concerning this communication or earlier communications from this

examiner should be directed to Christopher Onuaku whose telephone number is (703)

308-7555. The examiner can normally be reached on Tuesday to Thursday from 7:30

am to 5:00 pm. The examiner can also be reached on alternate Monday.

If attempts to reach the examiner by telephone is unsuccessful, the examiner's

THAI Q. TRAN   *305-4725*

supervisor, ~~Andrew B. Christensen~~, can be reached on (703) ~~308-9644~~.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

and (for informal or draft communications, please label "PROPOSED" or

"DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington. VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should

be direct to Customer Service whose telephone is (703) 306-0377.

COO

8/6/04.

THAI TRAN
PRIMARY EXAMINER